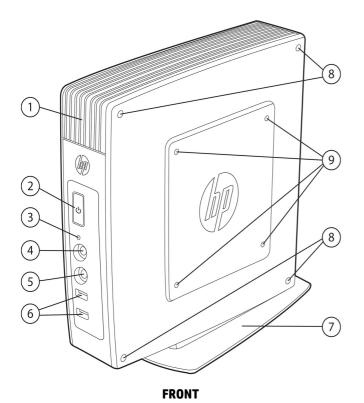
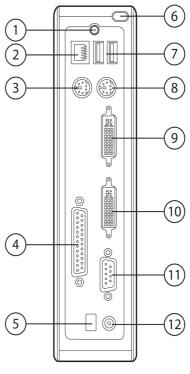
### **Overview**



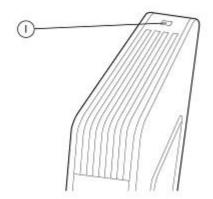
- . Secure USB compartment (2 USB connectors)
- 2. Power button with LED
- 3. Flash storage activity indicator
- 4. Audio connector (mic in)
- 5. Audio connector (headphone out)
- 6. USB connectors (2)
- 7. Vertical stand (removable)
- 8. Insertion points for self-adhesive, horizontal positioning feet 8.
- 9. VESA mounting points (4)



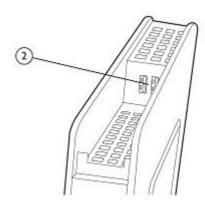
- **BACK**
- 1. Integrated wireless Ethernet antenna connector (available on some models)
- 2. 10/100/1000 Ethernet RJ-45 connector
- 3. PS/2 mouse connector
- 4. Parallel port
- 5. Power cord retention slot
- 6. Cable routing from secure USB compartment
- 7. USB connectors (2)
- 8. PS/2 keyboard connector
- 9. DVI-D connector
- 10. DVI-I connector
- 11. Serial Port
- 12. +19V DC power input



#### Overview



**TOP** 



1. Cable lock slot - secures unit and secure USB compartment

Secure USB compartment with cover removed – 2 USB connectors

#### At A Glance

#### Hardware features:

- VIA Eden X2 U4200 (1 GHz, 2 cores) processor for great performance
- VIA VX900 chipse
- 2 GB 1066 MHz DDR3 RAM (128 MB reserved for video)
- 1, 2 or 16GB Flash memory (depending on operating system) provides ample storage for applications and drivers
- 6 USB 2.0 ports
- Secure USB compartment is ideal for protecting USB wireless and USB Flash devices or for securing USB keyboard and mouse)
- Legacy support includes parallel, serial, and PS/2 connections
- Built in dual monitor support (DVI-I and DVI-D native, with DVI-I-to-VGA adapter included in carton)
- Energy Star® qualified and EPEAT® Gold registered where applicable/supported. See http://www.epeat.net for registration status by country.
- BFR/PVC free
- Contains over 10% post-consumer recycled plastics (by weight)

**NOTE:** HP t510 Flexible Thin Client series is brominated flame retardant and polyvinyl chloride free (BFR/PVC-free); meeting the evolving definition of "BFR/PVC-free" as set forth in the "iNEMI Position Statement on the 'Definition of Low-Halogen Electronics (BFR/CFR/PVC-Free)." Plastic parts contain <1,000 ppm (0.1 percent) of bromine (if the Br source is from BFRs) and <1,000 ppm (0.1 percent) of chlorine (if the Cl source is from CFRs or PVC or PVC copolymers). All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total <1,500 ppm (0.15 percent) with a maximum chlorine of 900 ppm (0.09 percent) and maximum bromine being 900 ppm (0.09 percent). Service parts after purchase may not be BFR/PVC-free. External power supply, power cords, keyboard, mouse, and DVI-to-VGA adapter may not be BFR/PVC free

#### Software features for HP t510 ThinPro Flexible Thin Client:

- HP ThinPro operating system provides a single console interface for dashboard visibility to all user and administrative touch points with user and administrator logins for added security.
- HP ThinPro supports modular software updates that can be applied remotely over the network with less bandwidth overhead.
   This type of update mechanism also improves HP's ability to deliver time to market client-side updates from third party software partners such as Citrix and VMware.
- ICA, PCoIP, and RDP support for accessing Windows and Citrix resources
- VDI broker support includes VMware View, Citrix XenDesktop (with CDA mode utility))



#### Overview

- Multimedia and USB redirection support
  - O Citrix HDX MediaStream (multimedia redirection)
  - Citrix HDX Plug-n-Play (USB redirection)
  - Preinstalled Video Codecs: MPEG 1, WMV 7/8/9
  - Preinstalled Audio Codecs: MP3, WMA, ALAW, MULAW
- HP Easy Tools
  - O HP Easy Setup Wizard: Guides administrators through one time setup
  - O HP Easy Update: Keep your software current
  - O HP Easy Config: Purpose your HP t510 as an optimized VDI appliance
  - HP ThinState: Capture your master image or settings and port to USB key or HP Automatic Update repository
  - HP Automatic Update: Automate configuration changes and/or software updates to multiple devices
     NOTE: run devices in stateless mode, or cache settings locally in persistent mode
- HP Device Manager simplifies visibility and management for small and large thin client deployments scattered across multiple subnets and NATed environments.
- Native HP TeemTalk terminal emulation suite and local XDMCP/X.11 for accessing legacy application resources such as mainframes and mid-range servers or Unix/Linux X-window environments.
- Improved Quality of Experience for End User using HP Velocity
  - Available only on HP thin clients
  - HP Velocity enables IT managers to monitor network activity and optimize end-user experience
  - O HP Velocity intelligently reduces network packet loss and retransmissions providing a better experience for the end user

#### Software features for HP t510 Flexible Thin Client with Smart Zero Technology:

- HP Smart Smart Zero technology, just boot and connect!
- Smart zero client Experience
  - Fast boot, quick connect and responsive interaction
  - O User boots into their host environment with no local desktop complexity
  - O User preferences can be set and retained without leaving the login screen
  - On-screen controls are streamlined to eliminate desktop clutter
- Citrix Optimization:
  - Full screen 1080P HDX multimedia capability at an affordable price
  - Dock bar for convenient access to multiple published applications
  - Smooth roaming assures that your applications follow you
- Automatic Intelligence
  - Intelligence is automatically inherited by HP Smart Zero Client Services
  - Support for Broadcast and DHCP Tag to discover Smart Zero Client Services
  - O Leverages remote intelligence resources to minimize desktop overhead
  - O Installation wizard establishes desktop environment for all devices in minutes
  - Automatic broadcast system finds HP Smart Zero Client Services & delivers user desktop in seconds
  - Profile editor allows connection changes to be made in just a few clicks
  - O Seamless updates from the cloud allow users work instead of waiting for installs
- Uncompromised IT
  - O Unique device purposing, choose from ICA-HDX or RDP or View with PCoIP
  - O HP Smart Zero Client Services integrates with host to maintain a clean IT environment
  - O Your desktop attack surface is minimized with no local apps
- Console visibility, asset information and reboot through HP Device Manager.
- Improved Quality of Experience for End User using HP Velocity
  - Available only on HP thin clients
  - HP Velocity enables IT managers to monitor network activity and optimize end-user experience
  - O HP Velocity intelligently reduces network packet loss and retransmissions providing a better experience for the end user



#### Overview

#### Software features for HP t510 WES 7 Flexible Thin Client:

- Microsoft® Windows® Embedded Standard 7 SP1 with support for Remote FX and local applications, providing a richer user experience
- Supports latest Internet Explorer 8 (IE8)
- Excellent rich multimedia experience and enhanced USB device support in VDI environments
- Latest protocol support from Citrix On-Line Plug in (ICA) 13, RDP 7.1 w/Remote FX, and VMware View 5.0
- Enhanced Write Filter and File-Based Write Filter provide complete flexibility to protect the entire Flash disk, or configure areas of the disk for persistent access by local applications
- Microsoft Firewall for enhanced data security
- Support 802.1x LAN-based authentication for greater security
- HP Universal Print Driver provides instant access to a range of HP print devices without downloading separate drivers.
   www.hp.com/go/upd
- Improved Quality of Experience for End User using HP Velocity
  - Available only on HP thin clients
  - HP Velocity enables IT managers to monitor network activity and optimize end-user experience
  - HP Velocity intelligently reduces network packet loss and retransmissions providing a better experience for the end user

#### Software features for HP t510 WES 2009 Flexible Thin Client:

- Windows Embedded Standard 2009 OS with support for local applications
- Supports latest Internet Explorer 8 (IE8)
- Excellent rich multimedia experience and enhanced USB device support in VDI environments
- Latest Protocol support from Citrix On-Line Plug in (ICA) 13, RDP 7, and VMware View 5.0
- HP Velocity (improves network QoS for virtualized resources including streaming multimedia running over the network)
- Enhanced Write Filter and File-Based Write Filter provide complete flexibility to protect the entire Flash disk, or configure areas of the disk for persistent access by local applications
- Improved Quality of Experience for End User using HP Velocity
  - Available only on HP thin clients
  - O HP Velocity enables IT managers to monitor network activity and optimize end-user experience
  - HP Velocity intelligently reduces network packet loss and retransmissions providing a better experience for the end user
- Symantec Endpoint Protection for enhanced data security
- Support 802.1x LAN-based authentication for greater security

#### Software features for HP t510 Windows CE Flexible Thin Client:

- Windows Embedded CE 6.0 R3 OS ideal for general office applications (CE6 "Release 3")
- Suited for customers needing light browsing and terminal emulation
- Internet Explorer 6 (IE6.0)
- Protocol support from Citrix On-Line Plug in (ICA) 10, RDP 6.0, and VMware View 4.0 4.5
- Supports 802.1x wired LAN

#### Warranty:

HP Total Care Warranty and Services: limited three-year hardware warranty in most regions. HP Care Pack Services extend service contracts beyond your standard warranties. For more details visit: http://www.hp.com/go/lookuptool.



# **Technical Specifications**

## **OPERATING SYSTEM**

HP t510 Flexible Thin Client models are pre-configured with one of the following operating systems.

**HP ThinPro** 

**HP Smart Zero Technology** 

Genuine Windows® Embedded Standard 2009

Genuine Windows® Embedded Standard 7

Windows Embedded CE 6.0 R3 (CE 6 Release 3)

# **PROCESSOR / CHIPSET**

VIA Eden X2 U4200 (1 GHz, 2 cores) VIA VX900

## **MEMORY**

	HP t510 ThinPro Flexible Thin Client	HP t510 Flexible Thin Client with Smart Zero Technology	HP t510 WES 2009 Flexible Thin Client	HP t510 WES 7 Flexible Thin Client	HP t510 CE 6 Flexible Thin Client
Flash (boot drive) memory	1 GB	1 GB	2 GB	16 GB	1 GB
System memory			2 GB DDR3 1066 MHz		
System memory reserved for graphics (minimum)			128 MB		
Maximum system memory			4 GB DDR3		
Memory slots			1 SODIMM		



## **Technical Specifications**

### **GRAPHICS**

VIA ChromotionHD 2.0 Integrated Graphics Processor

Mode	Color depth	Refresh rate (Hz)
640 x 480	8, 16, 32 bit	60, 72, 75, 85 Hz
800 x 600	8, 16, 32 bit	60, 72, 75, 85 Hz
848 x 480	8, 16, 32 bit	60, 75, 85 Hz
1024 x 480	8, 16, 32 bit	60 Hz
1024 x 768	8, 16, 32 bit	60, 70, 72, 75, 85 Hz
1280 x 720	8, 16, 32 bit	60, 75, 85 Hz
1280 x 768	8, 16, 32 bit	60 Hz
1280 x 1024	8, 16, 32 bit	60, 75, 85 Hz
1360 x 768	8, 16, 32 bit	60 Hz
1368 x 768	8, 16, 32 bit	60, 75, 85 Hz
1400 x 1050	8, 16, 32 bit	60, 75, 85 Hz
1440 x 900	8, 16, 32 bit	60, 75, 85 Hz
1600 x 1200	8, 16, 32 bit	60, 75 ,85 Hz
1680 x 1050	8, 16, 32 bit	60, 75 Hz
1920 x 1080	8, 16, 32 bit	60, 75 Hz
1920 x 1200	8, 16, 32 bit	60, 75, 85 Hz

# **INPUT/OUTPUT (peripheral support)**

**Keyboard** USB or PS/2 (varies by region) **Mouse** USB or PS/2 (varies by region)

**Printer** Local and/or network printers (RDP, ICA, LPD)

Video DVI-I & DVI-D digital video output (plus included DVI-I-to-VGA adapter)

### **AUDIO**

**Output** Internal amplified speaker

1/8-inch mini-jack, 24-bit stereo,

192 kHz sample rate

**Input** 1/8-inch microphone mini-jack, 20-bit stereo,

96 kHz sample rate

Audio codecs MP3

AAC stereo & HE AAC

WMA stereo

Video codecs MPEG-1

MPEG-4 part 2 (DivX, Xvid, H.263) MPEG-4 part 10 (H.264, AVC) WMV 7/8/9/ VC-1 & ASF Demuxer



# **Technical Specifications**

### **HARDWARE SECURITY**

Security lock slot (cable lock sold separately)
Secure USB compartment with 2 USB 2.0 ports

### **NETWORKING**

### Hardware networking

10/100/1000 Gigabit Ethernet (RJ-45) Wake on LAN (WOL) PXE TCP/IP with DNS and DHCP

#### Software networking

	HP t510 ThinPro Flexible Thin Client	HP t510 Flexible Thin Client with Smart Zero Technology	HP t510 WES 2009 Flexible Thin Client	HP t510 WES 7 Flexible Thin Client	HP t510 CE 6 Flexible Thin Client
Point-to-Point Protocol (PPP)			X	X	X
Point-to-Point over Ethernet (PPPoE)			X	X	X
Direct Connection through RS-232	X	X	X	X	X
Point-to-Point Tunneling Protocol (PPTP)	X	X	X	X	X
Layer-2 Tunneling Protocol (L2TP)	X	X	X	X	X
Server Network Time Protocol (SNTP)	X	X	X	X	

# **WIRELESS LAN (select models)**

**Adapter** Atheros 802.11a/b/g/n WIFI Adapter

Form Factor PCI-Express Half Mini Card

**Security**<sup>7</sup> Supports 64- and 128-bit WEP, WPA, WPA2, AES, TKIP, 802.1x

authentication types EAP-TLS, EAP-TTLS, EAP-PEAP, EAP-FAST, LEAP



### **Technical Specifications**

### I/O PORTS & CONNECTORS

#### **HP t510 Flexible Series Thin Clients**

6 USB 2.0 (two in front, two in rear, two in secure USB compartment)

1 Serial

1 Parallel

2 PS/2

1 RJ-45

1 DVI-I

1 DVI-D

1 DVI-I to VGA adapter included in carton

## SERVER OS COMPATIBILITY/SUPPORT

Citrix XenApp 5 and 6

Citrix XenDesktop 5.5

Citrix Presentation Server 4.0

Windows Server 2008 Terminal Services

Windows 2000/2003 Server families; Windows 2000/2003 Server Terminal Services

VMware Virtual Desktop Infrastructure using RDP or PCoIP

### **LANGUAGES (MUI)**

English, French, German, Spanish, Simplified Chinese, and Japanese

NOTE: Languages are selectable from the HP ThinPro Control Panel or Easy Config wizard

### SOFTWARE for HP t510 ThinPro Flexible Thin Client Models:

Operating System HP ThinPro (preinstalled)
Protocols ICA, RDP, and PCoIP
Protocol clients VMware View 4.6

rDesktop 1.6 Xwindows X11R6

HP TeemTalk Terminal Emulator 7

**Browser supported** Mozilla Firefox 8

Security 802.1x
Session brokers Preinstalled:

VMware View 4.6

vi iwaic view i.o

Management HP Device Manager agent
HP ThinState for rapid deployment

HP Easy Tools GUI (avail as add-on) guides you through initial setup and configurations

**NOTE:** Other add-on software available (see: www.hp.com/support for latest list of available add-ons)



Available from vendor's website:

Leostream Desktop Connection Broker Provision Networks (Quest) broker

# QuickSpecs

### **Technical Specifications**

### SOFTWARE for HP t510 Flexible Thin Client with Smart Zero Technology Models

Operating System HP Smart Zero Technology (preinstalled)

**Protocols** Citrix ICA

Citrix HDX PCoIP

Microsoft RDP

**Protocol clients** Citrix ICA 12.0

VMware View 4.6

HP TeemTalk Terminal Emulator 7

**HP RGS Receiver 5.x** 

**Browser supported** Firefox 8

Session brokers

Preinstalled:

Citrix Dockton Dolivory Controller anable

Citrix Desktop Delivery Controller enabled through web browser

VMware View 5.0

Management HP Smart Zero Client Services

Installation Wizard

• Automatic Intelligence:

Client Kits (ICA-HDX, RDP & View) preinstalled

Profile Repository (connections / settings)

Profile Editor (connections / settings)

Intelligent Delivery: Broadcast, DHCP Tag

• HP Device Manager preinstalled

**NOTE:** Other add-on software available (see: www.hp.com/support for latest list of available add-ons)

## **SOFTWARE for HP t510 WES 7 Flexible Thin Client Models**

Operating System Genuine Windows Embedded Standard 7 SP1 (preinstalled)

**Protocols** Microsoft RDP 7.1 w/RFX

Citrix ICA / HDX

VMware View through PCoIP or RDP

**Protocol clients** Citrix Receiver 3/Online Plug-in 13

VMware View 5.0

HP TeemTalk Terminal Emulator 7.3

**Browser supported** Microsoft Internet Explorer 8

**Security** Enhanced Write Filter and File-Based Write Filter

Microsoft Firewall

LogOn Manager (password logon)

Session brokers Citrix Desktop Delivery Controller enabled through web browser

VMware View 5.0

HP Remote Graphics Software v5.4

Available from vendor's website: Leostream Desktop Connection Broker Provision Networks (Quest) broker



### **Technical Specifications**

Management HP Device Manager agent

HP ThinState for rapid deployment

Microsoft SCCM/EDM agent

### **HP Easy Tools:**

• HP Easy Setup: Configuration setup wizard

HP Easy Config: Purpose thin client as an optimized VDI appliance

HP Easy Update: Automatically check for and install new software updates

**Additional components** Universal Print Driver

Adobe PDF Reader (available as add-on)

**HP Connection Manager** 

**NOTE:** Other add-on software available (see: www.hp.com/support for latest list of available add-ons)

### SOFTWARE for HP t510 WES 2009 Flexible Thin Client Models:

**Operating System** Genuine Windows® Embedded Standard 2009

Protocols Microsoft RDP 7.0 (Client Virtualization) Citrix ICA 13

VMware View 5.0 (RDP and PCoIP)

**Protocol Clients** Citrix Online Plug-in 13

VMware View 5.0 (RDP and PCoIP) HP TeemTalk Terminal Emulator 7

**Browser supported** Internet Explorer 8 (IE8)

**Security** Enhanced Write Filter and File-Based Write Filter

Symantec Endpoint Protection LogOn Manager (password logon)

Session brokers Citrix Desktop Delivery Controller enabled through web browser

VMware View 5.0

Available from vendor's website: Leostream Desktop Connection Broker Provision Networks (Quest) broker

Management HP Device Manager agent

HP ThinState for rapid deployment

#### **HP Easy Tools:**

HP Easy Setup: Configuration setup wizard

HP Easy Config: Purpose thin client as an optimized VDI appliance

HP Easy Update: Automatically check for and install new software updates

Additional components

**HP Connection Manager** 

Microsoft .NET Framework 2.0 SP2, 3.0 SP2 & 3.5 SP1

Microsoft Windows Media Player v12.0 Adobe PDF Reader (available as add-on)

**NOTE:** Other add-on software available (see: www.hp.com/support for latest list of available add-ons)



### **Technical Specifications**

#### SOFTWARE for HP t510 Windows CE 6.0 R3 Flexible Thin Client Models:

**Operating System** Windows® Embedded CE 6.0 R3

Protocols Microsoft RDP 6.0 (Client Virtualization) Citrix ICA 10.x

VMware View 4.x (RDP and PCoIP)

**Protocol Clients** Citrix Online Plug-in 10.x

VMware View 4.x (RDP and PCoIP)
HP TeemTalk Terminal Emulator

**Browser supported** Internet

Internet Explorer 6.0 for Windows CE

**Security** Enhanced Write Filter and File-Based Write Filter

Symantec Endpoint Protection

LogOn Manager (password logon)

Session brokers Citrix Desktop Delivery Controller enabled through web browser

VMware View 4.5

Available from vendor's website: Leostream Desktop Connection Broker HP Device Manager agent 4.0 Agent HP ThinState for rapid deployment

**HPCA** 

Altiris agent (license not included)

**HP Easy Tools:** 

HP Easy Setup: Configuration setup wizard

HP Easy Config: Purpose thin client as an optimized VDI appliance

HP Easy Update: Automatically check for and install new software updates

**Additional components** 

**HP ThinConnect Connection Manager** 

JetCET Print Professional

**Txtpad** 

Microsoft Windows Media Player v9.0 for Windows CE Viewers for Microsoft Office 2003: Excel, Powerpoint, Word

# **DIMENSIONS (WxDxH)**

Management

 Without stand
 2.3 x 8.5 x 8.25 in (5.84 x 21.59 x 20.95 cm)

 With stand
 2.3 x 8.5 x 8.65 in (5.84 x 21.59 x 21.97 cm)

**NOTE:** Dimensions are approximate

### **WEIGHT - Standard Chassis**

 With stand
 3.3 lbs (1.49 kg)

 Without stand
 3.2 lbs (1.45 kg)

**NOTE:** Weights are approximate



## **Technical Specifications**

#### **POWER**

65 W

Worldwide auto-sensing 100-240 VAC, 50-60 Hz Energy-saving automatic power-down

Surge-tolerant

#### **ENVIRONMENTAL**

Operating temperature

Standard

range

50° to 104° F (10° to 40° C

Using Quick Release with a flat panel monitor

50° to 95° F (10° to 35° C)

Using PCI Expansion Unit 50° to 104° F (10° to 40° C)

Non-operating temperature range

22° to 140° F (-30° to 60° C)

Humidity

Condensing 20% to 80%

Non-condensing

10% to 90% non-condensing

**NOTE:** Specifications are at sea level with altitude derating of 1° C/300m (1.8° F/1000ft) to a maximum of 3 Km (10,000 ft), with no direct, sustained sunlight. Upper limit may be limited by the type and number of options installed.

### REGULATORY COMPLIANCE

**Ergonomics** German ZH1/618; EN29241-3, approved

Safety UL 1950, CSA 950; TÜV-GS (EN60 950) approved

**RF Interference** FCC Class B; CE Mark; EN55022B; VCCI

### **EMULATIONS**

HP TeemTalk Terminal Emulator supports these emulations. SSH is supported in terminal emulation mode allowing users to secure their connections to the host.

EmulationTerminal IDADDS Viewpoint A2ADDS-A2AIXTermAixtermANSI BBSAnsiAT&T AT 386at386-mAT&T Dataspeed 4410att4410

Bull BQ3107 VIP7700, VIP7760

Data General Dasher

410/412

dg410



## **Technical Specifications**

Hewlett Packard HP700-

02/06

2392A, 2622A, 70092, 70094, 70096

92/96

Hazeltine 1500 HZ1500

IBM 3151 11, 11-28, 31, 31-28 IBM 3270 3278-2 (24x80 Mono), 3278-3 (32x80 Mono).

3278-4 (43x80 Mono), 3278-5 (27x132 Mono), 3278-2-E (24x80 Color), 3278-3-E (32x80 Color), 3278-4-E (43x80 Color), 3278-5-E (27x132 Color), 3279-2 (24x80 Color), 3279-3 (32x80 Color), 3279-4 (43x80 Color), 3279-5 (27x132 Color),

3287-1 (Printer)

IBM 5250 3179-2 (24x80 Color),

3180-2 (27x132 Mono Msg), 3196-A1 (24x80 Mono), 3477-FC (27x132 Color Msg), 3477-FG (27x132 Mono Msg), 3486-BA (24x80 Mono), 3487-HA (27x132 Mono), 3487-HC (27x132 Color),

3812-1 (Printer),

5251-11 (24x80 Mono), 5291-1 (24x80 Mono), 5292-2 (24x80 Color), 5553-B01 (DBCS Printer), 5555-B01 (DBCS 24x80 Mono), 5555-C01 (DBCS 24x80 Color)

McDonnell Douglas Prism- tty

8, Prism-12

McDonnell Douglas Prism- tty

9

Prime PT250 pt250 SCO Console ansi Siemens 97801 97801 Stratus V102 v102 Tandem TA6526, TA6530 tn6530-8 Televideo 910 TVI910 Televideo 920 TVI920 Televideo 925 TVI925 Televideo 950 TVI950

Televideo 955 TVI955

Unisys T27 UNISYS-TD830



## **Technical Specifications**

Viewdata 40 VIEWDATA - 40
Viewdata 80 VIEWDATA - 80
Viewdata Split VIEWDATA - SPLIT
DEC VT PCTerm VT-PCTERM

DEC VT100 m2200, vt100, vt101, vt102, vt125, vt131, vt132, vt220, vt240, vt320, vt340, vt420, vt510,

vt520, vt525

DEC VT100+ VT100+

DEC VT500 7-bit m2200, vt100, vt101, vt102, vt125, vt131, vt132, vt220, vt240, vt320, vt340, vt420, vt510,

vt520, vt525

DEC VT500 8-bit m2200, vt100, vt101, vt102, vt125, vt131, vt132, vt220, vt240, vt320, vt340, vt420, vt510,

vt520, vt525

DEC VT 52 m2200, vt100, vt101, vt102, vt125, vt131, vt132, vt220, vt240, vt320, vt340, vt420, vt510,

vt520, vt525

 VT HP220
 vt220

 VT UTF8
 VT-UTF8

 Wyse WY370
 WYSE-370

 Wyse WY50
 WYSE-50

 Wyse WY50+
 WYSE-50

 Wyse WY60
 WYSE-60

 Wyse PCTerm
 WYSE-PCTERM

**NOTE:** Wireless features, performance and support may vary depending on environmental variables such placement, settings and firmware of your access points. Please contact your wireless vendor for support of your wireless environment.



### Technical Specifications – Environmental Data

#### **ECO-LABEL CERTIFICATIONS & DECLARATIONS**

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these markets:

- ENERGY STAR® Category B
- EPEAT® Gold registered where applicable/supported, see www.epeat.net for registration status by country
- BFR/PVC-free product

**NOTE:** Products are brominated flame retardant and polyvinyl chloride free (BFR/PVC-free); meeting the evolving definition of "BFR/PVC-free" as set forth in the "iNEMI Position Statement on the 'Definition of Low-Halogen Electronics (BFR/CFR/PVC-Free)." Plastic parts contain <1,000 ppm (0.1 percent) of bromine (if the Br source is from BFRs) and <1,000 ppm (0.1 percent) of chlorine (if the Cl source is from CFRs or PVC or PVC copolymers). All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total <1,500 ppm (0.15 percent) with a maximum chlorine of 900 ppm (0.09 percent) and maximum bromine being 900 ppm (0.09 percent). Service parts after purchase may not be BFR/PVC-free. External power supply, power cords, keyboard, mouse, and DVI-to-VGA adapter are not BFR/PVC free

#### **ENERGY CONSUMPTION**

	115 VAC (60Hz)	230 VAC (50Hz)	100 VAC (60Hz)
Standard Models			
Idle State:	9.8 W	9.8 W	10.80 W
Off Mode:	0.44 W	0.45 W	0.45 W

**NOTE:** This product is in compliance with US executive order 13221, WOL (wake on LAN) disabled. Off Mode measurements are made with WOL disabled.

**NOTE:** The actual power consumption at your location could vary and is dependent on many factors including but not limited to software load on the thin client, attached peripherals, and environmental factors.

#### **HEAT DISSIPATION**

	115 VAC (60HZ)	230 VAC (50HZ)	100 VAC (60HZ)
Idle State:	33.44 BTU/hr	33.44 BTU/hr	33.23 BTU/hr
Off Mode:	1.50 BTU/hr	1.54 BTU/hr	1.54 BTU/hr

NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour

#### **BATTERIES**

This product complies with ISO standards:

- EU Directive 91/157/EEC
- EU Directive 93/86/EEC
- EU Directive 98/101/EEC

Batteries used in the product do not contain:

- Mercury greater the 5ppm by weight
- Cadmium greater than 10ppm by weight
- Lead greater than 4000ppm by weight.
- Battery size: CR2032 (coin cell)



### Technical Specifications – Environmental Data

• Battery type: Lithium

#### **RECYCLED MATERIAL**

**Product** 

- This product containsat least 10% recycled materials (by weight).
- This product isat least 90% (by weight) recyclable when disposed of properly at end of life.

**Packaging** 

- The EPE foam packaging material contains at least 5% (by weight) post-consumer recycled content.
- The corrugated paper packaging materials contains at least 80% (by weight) postconsumer recycled content.
- The packaging for this product is 100% (by weight) recyclable when disposed of properly.

#### **Rohs Compliance**

Hewlett-Packard is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. From July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

#### **MATERIAL USAGE**

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at: http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen\_specifications.html):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

#### **Packaging**



### Technical Specifications – Environmental Data

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.

Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

#### **End-of-life Management and Recycling**

Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers.

These instructions may be used by recyclers and other WEEE treatment facilities as well as HP 0EM customers who integrate and re-sell HP equipment.

#### **Hewlett-Packard Corporate Environmental Information**

For more information about HP's commitment to the environment:

**Global Citizenship Report:** 

http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html

**Eco-label certifications:** 

http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html

ISO 14001 certificates:

http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html



## Options and Accessories (sold separately)

		Part Number
Accessories	HP Quick Release Kit	EM870AA
	HP Integrated Work Center Stand	LH526AA
	HP Keyed Cable Lock (BFR/PVC free)	BV411AA
	65 Watt External Power Supply replacement	AZ552AA
Input Devices	HP PS/2 Standard Keyboard	DT527A
	HP USB Standard Keyboard	DT528A
	HP USB CCID Smartcard Keyboard (BFR/PVC free)	BV813AA
	HP PS/2 2-Button Optical Mouse	EY703AA
	HP USB 2-Button Optical Scroll Mouse	DC172B
Storage	HP USB External CD/DVD R/RW Drive (read only support)	BU516AA
Security	HP USB CCID Smartcard Keyboard (BFR/PVC free)	BV813AA
	Gemalto PC USB-TR Card Reader <sup>1</sup>	HWP117685A
	Gemalto .NET v2+ Smart Card <sup>1</sup>	HWP115303B
		HWP115647C
	SCM SCR331 USB Smart Card Reader <sup>1</sup>	904054
	HP Keyed Cable Lock (BFR/PVC free)	BV411AA
Care Pack Services <sup>2</sup>	9x5 Next-Business-Day Advanced Exchange - 3 Years <sup>3</sup>	331653-001; U4847E
	9x5 Next-Business-Day On-Site Coverage - 3 Years	331655-001; U4849E
	Hardware Installation	331686-001; UJ865E
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<sup>&</sup>lt;sup>1</sup>Option, drivers, warranty, and support are available directly from third party.

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<sup>&</sup>lt;sup>2</sup>Service levels and response times for HP Care Pack Services may vary depending on your geographic location. Restrictions and limitations apply. For details, visit: www.hp.com/go/carepack.

<sup>&</sup>lt;sup>3</sup>U4847E is available in all regions; U4849E is available in Latin America and Asia-Pacific/Japan.